STATE OF NEW HAMPSHIRE

BEFORE THE

PUBLIC UTILITIES COMMISSION

Docket No. DW 23-101

Pennichuck Water Works, Inc.; Pennichuck East Utility, Inc.; and Pittsfield Aqueduct Company, Inc.

Joint Amended Petition for Approval to Acquire by Consolidation or Merger of Pennichuck East Utility, Inc. and Pittsfield Aqueduct Company, Inc. into Pennichuck Water Works, Inc. and Approval of Rates for the Consolidated Pennichuck Water Works, Inc.

SUPPLEMENTAL DIRECT TESTIMONY OF DONALD L. WARE

September 26, 2024

TABLE OF CONTENTS

I.	INTRODUCTION	3
II.	PURPOSE OF THIS TESTIMONY	3
III.	SUMMARY OF REVISED RATE DESIGN	3
IV.	SPECIFIC CUSTOMER IMPACTS BY RATE GROUPS	7
V.	SPECIFIC CUSTOMER IMPACTS TO PWW, PEU, AND PAC CUSTOMERS	.11
VI.	AVERAGE RESIDENTIAL CUSTOMER BILL IMPACT	.12
VII.	UPDATED REPORT OF PROPOSED RATE CHANGE	.13
VIII.	NO CHANGES TO RATES COMMON TO ALL COMPANIES	.13
IX.	AFFORDABILITY AND JUST AND REASONABLENESS	.14

LIST OF ATTACHMENTS

Attachment A	Revised Multi-Tiered Rate Design Proposal
Attachment B	Affordability Table from Response to Londonderry Data Request 2-20

- Attachment C Revised Cost of Service Study (Sept. 2024)
- Attachment D Schedule 9, Revised Report of Proposed Rate Change (Sept. 2024)
- Attachment E Response to OCA Data Request 4-3

I. 1 **INTRODUCTION**

2 Please state your name and position with Pennichuck Water Works, Inc. ("PWW"); Q. 3 Pennichuck East Utility, Inc. ("PEU"); and Pittsfield Aqueduct Company, Inc. 4 ("PAC") (together, the "Companies"). 5 A. My name is Donald L. Ware. I am the Chief Operating Officer of PWW. I have worked 6 for PWW since 1995. I am a licensed professional engineer in New Hampshire, 7 Massachusetts, and Maine. I am the Chief Operating Officer for PEU and PAC. I 8 9 described my educational and professional background in my previously-filed testimony 10 in this proceeding and incorporate that testimony here so as to avoid redundancy. II. PURPOSE OF THIS TESTIMONY 11 12 Q. What is the purpose of your testimony? 13 A. The purpose of my testimony is to discuss changes the Companies propose to the rate 14 design previously filed with the Commission. The Companies' revenue requirement, 15 once approved by the Commission, will be allocated among the Companies' customer 16 classes. In this merger filing, the Companies proposed a method of allocating that 17 revenue requirement among the customer classes and supported that proposal with a cost 18 of service study. However, as a result of numerous rounds of discovery and having 19 received input from the parties, as adjudicative proceedings are designed to provide, the 20 Companies propose changes to that initially proposed rate design. This testimony is to 21 inform the Commission, publicly, of those proposed changes to the rate design and to 22 explain the impact on the customer classes. 23 III.

24 25

SUMMARY OF REVISED RATE DESIGN

Q. Please provide an overview of the proposed revised rate design. 26

1 A. The Companies propose to revise the two-tiered rate design initially proposed which was based on a Core and Non-Core GM volumetric rate to a multi-tiered, inclining block rate 2 structure that includes a Single Tariff GM volumetric rate. The single volumetric rate 3 would be for all GM customers across the PWW, PEU, and PAC systems and would be 4 tiered by consumption as follows: 5

Tier Usage Proposal	Rate per Hundred Cubic Feet (CCF)
Tier 1 (0 to 7 CCF)	\$4.50
Tier 2 (8 to 20 CCF)	\$5.43
Tier 3 (21 CCF and over)	\$7.35

6

18

Q. Are there any changes to the customer classes? 7

8 A. Yes. This revised rate proposal adds a new customer rate class: GM-Multi Family volumetric. This rate would apply to all multifamily buildings (building with a single 9 meter and providing service to two or more residential units) across PWW, PEU, and 10 PAC. The volumetric pricing for this new customer class would be the same volumetric 11 12 pricing, per tier, as the GM Volumetric customer, but each GM-Multi Family tier would 13 be adjusted for each multifamily building that is master metered with the volume allocated to each tier based on the number of units in the multifamily building. 14 15 Q. Please provide an example of this pricing. 16 A. If a multifamily building had 10 units, its bill would be based on consumption in the first tier (0-70 CCF (7 CCF/unit x 10 units) @ approx. \$4.50 per CCF), second tier (71 – 200 17 CCF @ approx. \$5.43 per CCF), and a third tier (201+ CCF @ approx. \$7.35 per CCF).

1		That way, multifamily building customer accounts would benefit from the more
2		affordable 0 to 7 CCF rate for basic water needs but that more discretionary water use
3		would be charged at the higher tier rates to send the appropriate conservation pricing
4		signal.
5	Q.	Is this new rate group volumetric pricing the product of a Cost of Service study (COSS)?
6	A.	No. The new rate group volumetric pricing was developed out of collaborative
7		discussions between all intervenors in an effort to provide the most affordable water to
8		the most vulnerable GM customer classes, the single family residential and the
9		multifamily residential customers. The COSS volumetric revenue requirement that was
10		used to derive the proposed pricing was based on a rerun of the initially-filed COSS
11		based on a revenue requirement for the merged PWW company of \$55,100,965 which the
12		Companies believe is final. This revised COSS is attached to this testimony as
13		Attachment C.
14	Q.	Do the Companies propose any other rate design changes from those proposed in
15		the initial filing?
16	А.	No. The other components of the rate design proposal remain the same as the initial rate
17		proposal which include: a single GM-Fixed Meter Charge (based on meter size), the
18		adoption of a tiered Municipal Fire rate (based on community fire protection
19		requirements) and a Private Fire Class with rates base on the size of the fire service.
20	Q.	Please explain how this revised rate design differs from what the Companies initially
21		proposed.
22	A.	The revised rate design differs from the initial rate design in regard to the design of the
23		GM volumetric rates which are used to derive the COSS revenue requirement from the

1		Companies GM customers. The initial proposal developed the GM Volumetric revenue
2		requirement via the COSS and then requested recovery of that revenue requirement from
3		PWW's GM customers via two GM volumetric classes, the GM PWW Core volumetric
4		customer and the GM PWW Non-Core volumetric customer. This initial proposal set the
5		volumetric rate for the GM PWW Non-Core volumetric customer at 20% more per CCF
6		than the GM PWW Core volumetric customer, whereas, the revised proposal derives the
7		GM Volumetric revenue requirement through two customer classes: (1) the GM
8		Multifamily Customer; and (2) GM Customers other than Multifamily (Single Family
9		Residential, Commercial, Municipal and Industrial). In this revised rate proposal, the
10		volumetric revenues will be derived via an inclining block rate structure that is the sum of
11		revenues derived from PWW, PEU, and PAC's: (1) GM customers (excluding GM
12		Multifamily Residential); and (2) GM Multifamily Residential (MFR) customers.
13	Q.	How will this be reflected in the tariff?
14	A.	The proposed tariff for the GM volumetric customers (currently shown on PWW tariff
15		Page 43) will be restructured as a new PWW tariff Page 43-A to reflect the volumetric
16		rates as follows:
17		Volumetric:
19 20 21		In addition to the standard customer charge, the monthly volumetric charge based on usage will be as follows:
22 23 24		Volumetric Charge <u>for GM Customers per hundred cubic feet (CCF) as follows</u> : \$4.39 [‡] per 100 cu. Ft.
24 25 26		Tier 1 (0 to 7 CCF) \$4.50 per CCF
27		Tier 2 (8 to 20 CCF) \$5.43 per CCF

¹ This rate is prior to the annual November 2024 rate change from PWW's DW 19-084 rate case.

1		Tier 3 (above 20 CCF)	\$7.35 per CCF	
2		Volumetric Charge for GM Multifamil	y Residential Customers:	
3		Tier 1 (0 to 7 CCF) times the nu	mber of units in the multifamily	y residential
4		building @ \$4.50 per CCF		
э 6		Tier 2 (8 to 20 CCF) times the n	umber of units in the multifami	lv residential
7		building @ \$5.43 per CCF	and of units in the multifulfi	iy i concintiai
8				
9		Tier 3 (above 20 CCF) times the	number of units in the multifam	mily
10		residential building @ \$7.35 per	CCF	
11				
12	IV.	SPECIFIC CUSTOMER IMPACTS B	Y RATE GROUPS	
13	Q.	Please explain how this revised rate des	ign would affect the customers	falling in the
14		first volumetric tier.		
15		A. The water used in the first	tier (0-7 CCF) would be charged	a rate of \$4.50
16		per CCF which is less than the PWW Cor	e Stand Alone volumetric rate of	\$4.54 ² per
17		CCF. According to the Companies' custo	mer usage data at Attachment A,	page 17:
18		1. Eighty-Three percent (83%) of	all GM SFR customers monthly b	oills from all
19		three utilities during winter month	s reflect usage less than 7 CCF p	er month.
20		Seventeen percent (17%) of all GI	A SFR monthly bills from all three	e utilities
21		during winter months reflect usage	e between 8 and 20 CCF per mon	th. The
22		remaining one percent (1%) of all	GM SFR monthly bills from all t	hree utilities
23		during winter months reflect usage	e over 20 CCF per month.	

² This rate is based on the volumetric rates approved in Docket No. DW 22-032, adjusted for the November 2023 (\$4.39) and to be proposed November 2024 (\$4.37) annual rate adjustments required under PWW's DW19-084 rate case; and then adjusted for the QCPAC of 1.36% approved in DW 23-015 for 2022 PWW capital expenditures and the QCPAC of 2.42% being sought in DW 24-027 for PWW's 2023 capital expenditures.

1	2. Ninety-one percent (91%) of all GM MFR customers monthly bills from all
2	three utilities during winter months reflect usage less than 7 CCF per month. Nine
3	percent (8%) of all GM MFR monthly bills from all three utilities during winter
4	months reflect usage between 8 and 20 CCF per month. The remaining one
5	percent (1%) of all GM MFR monthly bills from all three utilities during winter
6	months reflect usage over 20 CCF per month. See, Attachment A, page 17.
7	3. Forty-three percent (43%) of all GM Municipal customers monthly bills from
8	all three utilities during winter months reflect usage less than 7 CCF per month.
9	Twenty-one percent (21%) of all GM Municipal monthly bills from all three
10	utilities during winter months reflect usage less between 8 and 20 CCF per month.
11	The remaining thirty-six (36%) of all GM SFR Municipal monthly bills from all
12	three utilities during winter months reflect usage over 20 CCF per month. See
13	Attachment A, page 17.
14	4. Fifty-Four percent (54%) of all GM Commercial customers monthly bills from
15	all three utilities during winter months reflect usage less than 7 CCF per month.
16	Nineteen percent (19%) of all GM Commercial monthly bills from all three
17	utilities during winter months reflect usage between 8 and 20 CCF per month.
18	The remaining Twenty-seven (27%) of all GM SFR Commercial monthly bills
19	from all three utilities during winter months reflect usage over 20 CCF per month.
20	See Attachment A, page 17.
21	5. Forty-two percent (42%) of all GM Industrial customers monthly bills from all
22	three utilities during winter months reflect usage less than 7 CCF per month.
23	Twenty-three percent (23%) of all GM Industrial monthly bills from all three

1		utilities during winter months reflect usage between 8 and 20 CCF per month.
2		The remaining Thirty-four (34%) of all GM SFR Industrial monthly bills from all
3		three utilities during winter months reflect usage over 20 CCF per month. See
4		Attachment A, page 17.
5		The Companies set these CCF tiers for both the SFR and MFR per unit to capture the
6		typical residential customer's non-discretionary usage so as to address affordability for
7		customers with limited or fixed incomes, especially in that first 0 to 7 CCF tier. The
8		Companies chose the second tier at 7 to 20 CCF because it captures all but 1% of all SFR
9		and MFR per unit usage during the winter bill period. The Companies felt that the winter
10		usage most accurately captured non-discretionary water use because outside and
11		recreational water uses do not occur during the winter months.
12	0	Please describe how the proposed tiered rates will affect customers falling into the
	×۰	T tease describe now the proposed tiered rates will affect customers faming into the
13	v	third volumetric tier.
13 14	ч . А.	The third and final tier (21+ CCF/month for GM customers and 21+ CCF/month x
13 14 15	А .	third volumetric tier. The third and final tier (21+ CCF/month for GM customers and 21+ CCF/month x number of units for the GM MF customer) would pay the rate of \$7.35 per CCF, which is
13 14 15 16	А .	 third volumetric tier. The third and final tier (21+ CCF/month for GM customers and 21+ CCF/month x number of units for the GM MF customer) would pay the rate of \$7.35 per CCF, which is the volumetric rate necessary to achieve the required revenues from volumetric sales. A
13 14 15 16 17	А .	third volumetric tier. The third and final tier (21+ CCF/month for GM customers and 21+ CCF/month x number of units for the GM MF customer) would pay the rate of \$7.35 per CCF, which is the volumetric rate necessary to achieve the required revenues from volumetric sales. A GM customer using 21+ CCF per month will purchase the first 7 CCF of their monthly
13 14 15 16 17 18	A.	third volumetric tier. The third and final tier (21+ CCF/month for GM customers and 21+ CCF/month x number of units for the GM MF customer) would pay the rate of \$7.35 per CCF, which is the volumetric rate necessary to achieve the required revenues from volumetric sales. A GM customer using 21+ CCF per month will purchase the first 7 CCF of their monthly water bill at the first tier rate of \$4.50 per CCF, the next 13 CCF at the second tier rate of
13 14 15 16 17 18 19	А.	third volumetric tier. The third and final tier (21+ CCF/month for GM customers and 21+ CCF/month x number of units for the GM MF customer) would pay the rate of \$7.35 per CCF, which is the volumetric rate necessary to achieve the required revenues from volumetric sales. A GM customer using 21+ CCF per month will purchase the first 7 CCF of their monthly water bill at the first tier rate of \$4.50 per CCF, the next 13 CCF at the second tier rate of \$5.43 per CCF, and the remainder of their monthly consumption will be billed at the third
13 14 15 16 17 18 19 20	A.	third volumetric tier. The third and final tier (21+ CCF/month for GM customers and 21+ CCF/month x number of units for the GM MF customer) would pay the rate of \$7.35 per CCF, which is the volumetric rate necessary to achieve the required revenues from volumetric sales. A GM customer using 21+ CCF per month will purchase the first 7 CCF of their monthly water bill at the first tier rate of \$4.50 per CCF, the next 13 CCF at the second tier rate of \$5.43 per CCF, and the remainder of their monthly consumption will be billed at the third tier rate of \$7.35 per CCF. (See, Attachment A, page 6, column entitled "Rates per CCF
13 14 15 16 17 18 19 20 21	A.	third volumetric tier. The third and final tier (21+ CCF/month for GM customers and 21+ CCF/month x number of units for the GM MF customer) would pay the rate of \$7.35 per CCF, which is the volumetric rate necessary to achieve the required revenues from volumetric sales. A GM customer using 21+ CCF per month will purchase the first 7 CCF of their monthly water bill at the first tier rate of \$4.50 per CCF, the next 13 CCF at the second tier rate of \$5.43 per CCF, and the remainder of their monthly consumption will be billed at the third tier rate of \$7.35 per CCF. (See, Attachment A, page 6, column entitled "Rates per CCF per Tier" at the top of the page.) The more an existing PWW customer uses water in the
13 14 15 16 17 18 19 20 21 22	A.	third volumetric tier. The third and final tier (21+ CCF/month for GM customers and 21+ CCF/month x number of units for the GM MF customer) would pay the rate of \$7.35 per CCF, which is the volumetric rate necessary to achieve the required revenues from volumetric sales. A GM customer using 21+ CCF per month will purchase the first 7 CCF of their monthly water bill at the first tier rate of \$4.50 per CCF, the next 13 CCF at the second tier rate of \$5.43 per CCF, and the remainder of their monthly consumption will be billed at the third tier rate of \$7.35 per CCF. (See, Attachment A, page 6, column entitled "Rates per CCF per Tier" at the top of the page.) The more an existing PWW customer uses water in the third tier the greater the impact will be on their current water bill. All PEU GM customer

1		in PEU of \$9.50 per CCF is greater than the proposed \$7.35 per CCF. A PAC customer
2		using up to 101 CCF will have a lower bill under the proposed tiered rate structure versus
3		Stand Alone rates. Less than 1% of PAC's bills issued in 2022 exceeded 101 CCF.
4	Q.	What percentage of customer bills fall into the third tier pricing during the winter
5		months?
6	A.	SFR – less than 1%
7		MFR – less than 1%
8		Municipal – 37%
9		Commercial - 27%
10		Industrial – 34%
11	Q.	What percentage of customer bills fall into the third tier pricing during the summer
12		months?
12 13	A.	months? SFR – less than 17%
12 13 14	A.	months? SFR – less than 17% MFR – less than 1%
12 13 14 15	А.	months? SFR – less than 17% MFR – less than 1% Municipal – 49%
12 13 14 15 16	А.	months? SFR – less than 17% MFR – less than 1% Municipal – 49% Commercial - 37%
12 13 14 15 16 17	А.	months? SFR - less than 17% MFR - less than 1% Municipal - 49% Commercial - 37% Industrial - 53%
12 13 14 15 16 17	А. Q.	months? SFR - less than 17% MFR - less than 1% Municipal - 49% Commercial - 37% Industrial - 53% Why does the percentage of customers using water in the third tier go up during the
12 13 14 15 16 17 18 19	A. Q.	months?SFR - less than 17%MFR - less than 1%Municipal - 49%Commercial - 37%Industrial - 53%Why does the percentage of customers using water in the third tier go up during thesummer months?
12 13 14 15 16 17 18 19 20	А. Q. А.	<pre>months? SFR - less than 17% MFR - less than 1% Municipal - 49% Commercial - 37% Industrial - 53% Why does the percentage of customers using water in the third tier go up during the summer months? The increased summer usage is primarily a function of outside water usage, which is</pre>
12 13 14 15 16 17 18 19 20 21	А. Q. А.	<pre>months? SFR - less than 17% MFR - less than 1% Municipal - 49% Commercial - 37% Industrial - 53% Why does the percentage of customers using water in the third tier go up during the summer months? The increased summer usage is primarily a function of outside water usage, which is primarily related to irrigation.</pre>
12 13 14 15 16 17 18 19 20 21 22	А. Q. А.	<pre>months? SFR - less than 17% MFR - less than 1% Municipal - 49% Commercial - 37% Industrial - 53% Why does the percentage of customers using water in the third tier go up during the summer months? The increased summer usage is primarily a function of outside water usage, which is primarily related to irrigation.</pre>

1 V. SPECIFIC CUSTOMER IMPACTS TO PWW, PEU, AND PAC CUSTOMERS

Q. Please describe how the tiered rate proposal would impact the Company's residential customers (both SFR and MFR per unit) for each of Pennichuck Customers across each of the three utilities. 5

- 6 A. Please see Attachment A to this testimony for the requested comparison (Tab "Rate
- 7 Impacts"). The Attachment is based on two usage scenarios: (1) the first based on a
- 8 customer using 5.19 CCF (which is the five-year average wintertime usage for SFR
- 9 customers across all utilities); and (2) the second based on the 5-year average year-round

10 usage for SFR customers by utility.	A summary of the table is as follows:
--	---------------------------------------

Company and Customer Usage	2022 Test Year Stand Alone Rate	Merged Company Revised Tiered Rate
PWW-SFR winter usage 5.19 CCF/month	\$52.71	\$52.37 ³
PWW-SFR average usage 7.61 CCF/month	\$63.89	\$63.83 ⁴
PEU-SFR winter usage 5.19 CCF/month	\$83.89	\$52.37
PEU-SFR average usage 6.79 CCF/month	\$101.63	\$59.57 ⁵
PAC-SFR winter usage 5.19 CCF/month	\$62.19	\$52.37
PAC-SFR average usage 5.38 CCF/month	\$63.50	\$53.236

³ See, Attachment A, page 1.

⁴ See Attachment A, page 2.

⁵ See Attachment A, page 2.

⁶ See Attachment A, page 2.

1		Under the revised tiered rate design, the Companies expects that the majority MFR
2		building wintertime bill (over 90%) will be less for all three utilities than that customer
3		would have paid under the 2022 test year Stand Alone rates because:
4		1. The tiered rates are per unit, and
5		2. A typical MFR customer uses less water per unit than a SFR so it is expected that
6		more of the usage from the MFR will fall into the first tier pricing. Based on the last five
7		years data and the MFR unit data that the Company has over 90% of the MFR volumetric
8		usage being billed in the first tier where the proposed rate of \$4.50 per CCF is less than
9		the current volumetric rates in each of the utilities.
10	VI.	AVERAGE RESIDENTIAL CUSTOMER BILL IMPACT
11	Q.	Can you please provide further detail on how the average residential ratepayer's bill
12		would change from the initial proposed rate design to the revised multi-tiered
13		approach?
14	А.	For, PWW, a SFR customer who uses less than 8 CCF per month (per Attachment A,
15		page 17, or Excel Tab: Usage by Tier Summary- 83% of all SFR bills during the winter
16		months are less than 8 CCF) will have a lower monthly water bill under the proposed
17		
т/		inclining block rate structure when compared against PWW 2022 Stand Alone rates. The
18		inclining block rate structure when compared against PWW 2022 Stand Alone rates. The average PWW SFR customer who uses less than 21 CCF per month will have a lower
18 19		inclining block rate structure when compared against PWW 2022 Stand Alone rates. The average PWW SFR customer who uses less than 21 CCF per month will have a lower monthly water bill under the inclining block rate structure when compared against the
18 19 20		inclining block rate structure when compared against PWW 2022 Stand Alone rates. The average PWW SFR customer who uses less than 21 CCF per month will have a lower monthly water bill under the inclining block rate structure when compared against the initially proposed Core, Non-Core rate structure (99% of all SFR bills during the winter

1		All PEU and PAC SFR customers will have lower rates under the proposed
2		inclining block rate when compared against the initially proposed Non-Core rates for up
3		to 42 CCF of usage per month (100% of all winter bills). All PEU SFR customers will
4		have a lower monthly bill, regardless of usage, under the proposed inclining block rate
5		tiered rate structure versus Stand Alone PEU 2022 rates. PAC customers using less than
6		101 CCF of usage per month will have a lower monthly bill under the proposed inclining
7		block rate tiered rate structure versus Stand Alone PAC 2022 rates. (99 % of PAC SFR
8		customers use less than 101 CCF per month, regardless of the time of year.)
9	VII.	UPDATED REPORT OF PROPOSED RATE CHANGE
10 11 12 13	Q.	The Companies filed a Report of Proposed Rate Changes, or "Bingo Sheet" with its initial proposed rate design, can you explain how that would change under this new rate design proposal?
14 15	A.	The initial Schedule 9 Bingo Perm sheet has been updated based on the attached, revised
16		COSS which was rerun with the final revenue requirement of \$55,100,965 and revised
17		for usage in each of the three tiers in the GM Volumetric and GM-MFR Volumetric
18		customer classes. Please see the attached 1604.08 Schedule 9 (Attachment D) for a
19		comparison of rates for all customer classes as compared to the revenue requirements
20		granted in each utility's last rate increase requests, DW22-032 for PWW, DW20-153 for
21		PEU and DW20-156 for PAC.
22	VIII.	NO CHANGES TO RATES COMMON TO ALL COMPANIES
23 24	Q.	Does this new proposed rate design change the Miscellaneous Utility Service Fees
25		shown on PWW's tariff Page 46?
26	A.	No. These rates will remain unchanged under both the rate design initially proposed and
27		under the current revised rate design proposal.

1	IX.	AFFORDABILITY AND JUST AND REASONABLENESS
2 3	Q.	Please describe whether and how affordability factored into the Companies' revised
4		rate design proposal.
5	A.	As stated in my initial merger testimony, the proposal to merge the three utilities was
6		driven by the Companies' desire to maintain affordable rates in PEU and PAC, to provide
7		access to lower cost capital for PEU and PAC, and to create efficiency's in back end
8		support services as a result of reduced regulatory filings. The reduction in filing
9		requirements includes:
10		1. Reduction in the number financing filings from a minimum of two each year to one
11		each year.
12		2. Reduction in the number of QCPAC filing each year from two to one.
13		3. Reduction in the number of full rate case filings from an average of one per year to
14		one every three years.
15		4. A reduction in the number of annual reports from three to one.
16		5. A reduction in the number of bank accounts that must be maintained and managed
17		from twelve bank accounts for the respective CBFRR, CBFRR RSF, MOERR, MOER
18		RSF, 1.0 DSRR, and 0.1 DSRR to four bank accounts.
19		6. Reduced time keeping by field staff.
20		7. Implementation of a simplified management fee allocation.
21		After the filing, as the Companies continued a dialogue with the stakeholders and
22		interveners to this docket, it became evident that the Companies' initial Core/Non-Core
23		volumetric rate proposal, which accomplished affordable rates in PEU and PAC would
24		not be acceptable because lower rates in PEU and PAC were partially supported with

1		increases in rates to PWW's SFR and MFR customers. Upon conducting more detailed
2		analysis of the initial proposal on PWW's volumetric rate that utilized the Core/Non-Core
3		approach to produce its volumetric revenue requirement, the Companies scrapped the
4		initial two-tier volumetric rate design to address concerns of larger monthly bills for
5		PWW's SFR and MFR customers and concerns of potentially creating issues of
6		unaffordability for residential customers, such as Nashua's lowest quartile of SFR and
7		MFR customers. In lieu of the two-tiered volumetric rate structure that was initial
8		proposed, the Companies investigated the use of an inclining block rate structure that
9		would be common to all customers across the three utilities. As noted in my testimony
10		above, the results of these discussions and investigation produced a better rate outcome
11		for all of PWW's, PEU's, and PAC's residential customers non-discretionary usage
12		(wintertime consumption) when compared against both existing rates and Stand Alone
13		rates (based on a 2022 test year).
14	Q.	How will the tiered rate be applied to MFR customers?
15	A.	Each unit in a MFR building will be allotted water in each of the GM Volumetric tiers,
16		but adjusted based on the number of units in each MFR building. By example, if there is
17		a MFR building with 4 units and a single 5/8" meter the monthly bill for this building
18		would be the monthly fixed charge for a 5/8" meter plus its volumetric usage in each tier,
19		where the first tier rate of \$4.50 per CCF would be applied to the first 28 CCF of monthly
20		usage (4 units x 7 CCF per unit), the second tier rate of \$5.43 per CCF would be applied
21		to the next 52 CCF of usage for the month (4 units x 13 CCF per unit). If the usage by
22		this MFR building exceeded 80 CCF (4 units x 20 CCF), the usage above 80 CCF for the
23		month would be billed out the third tier rate of \$7.35 per CCF.

- 1 Q. How many MFR customers are there within all three utilities?
- 2 A. As of the end of 2022 there were 2,839 MFR customer.

3 Q. How will PWW determine how many residential units there are in each metered 4 MFR building?

A. The Companies, and PWW going forward, are working with each community assessing 5 and building departments where MFR customers exist, as well as working with the 6 property managers of the various MFR buildings, to accurately define the number of units 7 in each building that are fed by a single meter. To date, the Companies have identified 8 9 the number of units in each MFR single metered building for buildings having meters 3/4" and larger (675 of the 2,839 MFR accounts). The Companies have also identified 10 the number of units associated with an additional 630 of the remaining 2,164 MFR 11 buildings with a 5/8" meters. Please see the "MFR Meter data" tab of Attachment D for 12 the total number of MFR buildings and how many of those buildings the Companies have 13 been able to identify the actual number of units for, and how many the Companies will 14 initially assign the number of units, based on the meter size. 15

Q. What was the basis of the Companies allocating 4 units to a 5/8" metered MFR building?

A. The Companies an average MFR unit consisted of 1.5 bathrooms, one dishwasher, one
clothes washer and one kitchen sink. Based on AWWA Manual M6, a total of four units
would create a peak flow of just under 20 gallons per minute, which is the rating for a
5/8" meter. Based on this analysis the Company allocated 4 units per 5/8" MFR meter
that it has yet to identify the actual number of units behind the 5/8" meter to date.
Utilizing this allocation for the yet identified number of MFR units, the Companies

1		calculated the tier usage allowance by allowing 4 units per MFR 5/8" meter for the 1,534
2		MFR buildings where it has yet to identify the actual number of units. All other MFR
3		accounts (1,305) volumetric usage was placed into tiers based on the actual number of
4		units in each MFR building. The result of this analysis can be found on Attachment A,
5		page 15; or at tab titled "5 Yr Tiered Usage". The company evaluated the tiered usage on
6		a per account basis, for all customer classes, over the past 5 years and then used the five-
7		year average of by account analysis to develop the amount to be used in each tier to
8		develop the third tier volumetric rate necessary to produce the GM-Volumetric revenue
9		requirement.
10	Q.	How long does the Company believe it will take to identify the actual number of
11		units associated with each MFR metered building?
12	А.	PWW anticipates it will take approximately 6 months after the approval of the merger to
13		complete the survey of municipal assessing documents and other data to verify the
14		number of actual units in each of the MFR meter buildings such that this effort should be
15		completed in advance of filing PWW's next rate case.
16	Q.	When the Companies identifies the actual number of units for a MFR building and
17		find that it varies from the number of units the Companies have built into the tiered
18		billing for that building, how do the Companies or PWW propose to correct the
19		billing for the MFR customer?
20	A.	Which rate class a specific customer falls within is a fact-based assessment under the
21		tariff. See tariff Page 8, Section 2.A. For the Multi Family rate group, the Companies
22		have used the best available data to date. When the Companies, or PWW post-merger,
23		become aware of additional factual information that places the customer in a different

1		unit calculation, PWW will move that customer to the correct unit calculation. The
2		Companies are proposing that in the event the actual number of units in a MFR building
3		is more than what was allocated, and the result is that the customer was overbilled, the
4		customer will be given a credit to their bill for the amount of the overbilling. In the event
5		the actual number of units in a MFR building is less than what was allocated, and the
6		result is that the customer was underbilled, the customer unit count will be corrected and
7		billing going forward will be based on the actual number of units in the building. The
8		Companies propose that it will not collect any amount due to the underbilling. The
9		Companies and PWW expect that once the Multi Family rate group is made known to its
10		affected customers, that multifamily buildings with high per-unit usage will be incented
11		to search for leaks and reduce discretionary water use.
12	Q.	The 5-year average usage on the "5 Yr Tiered Usage" tab of 5,145,695 is slightly
13		more than the 5,122,648 CCF 5-year average for all the utilities (excluding special
14		contract sales). Please explain where there is a difference in these numbers?
15	А.	The data developed from Munis reports is abstracted at the time the report is run. In
16		between reports if there is a correction to a reading (replace estimated reading with actual
17		reading, adjust reading for stopped meter, leak adjustment, etc.) the results of each report
18		run will vary slightly.
19	Q.	How did you adjust for the 23,047 CCF difference between the CMMS billing data
20		and the 1604.06 Sch 1C CCF data for purposes of calculating the third tier rate?
21	А.	The ratio of the CCMS 5 year average billed consumption to the Merged 1604.06 Sch
22		1C's reported consumption was multiplied times the CMMS consumption per tier as

1		each tier being slightly reduced, ratably, such that the total of the consumption across the
2		three tiers equals the 5,122,648 CCF 5 year average consumption for all the utilities, less
3		the special contract consumption.
4	Q.	In regard to the Special Contracts, how was the increase determined for the
5		volumetric rate in each of the Contracts?
6	А.	The language in each of the Contracts allow for adjustment to the Volumetric rate of the
7		Contract as follows:
8 9 10 11		"The Volumetric Charge may only be adjusted by the same percentage and at the same time as any future change in the volumetric rates for general metered service, as adjudicated by the NHPUC, which the Company charges to its core system customers in the City of Nashua."
12		In this rate case the change to the volumetric rates for a GM customer varies with usage
14		based on the tiered structure, unlike when the volumetric charge for flat, which results in
15		a uniform increase to each customer. The COSS identified a required increase in the
16		volumetric revenue requirement of from the current volumetric revenues to the
17		requirement volumetric revenues of 24.21% (See Attachment C, page 37, or tab titled
18		"COSS Rev 2", Rows 41 to 47 for this calculation). The Company applied the 24.21%
19		increase to each of the Special Contract's volumetric rates as it represents the "average"
20		increase across all GM customers volumetric rates.
21	Q.	Will the SRF and MFR customers of PEU and PAC see a greater reduction in
22		monthly bills than those in PWW?
23	A.	Yes.
24	Q.	Please explain why that result is in the public interest

1	A.	As discussed in my earlier testimony, each of the three utilities is served by the same staff
2		and has similar amounts of debt per customer. It takes the same amount of labor to
3		complete basic distribution tasks like checking gates, reading meters, checking hydrants,
4		repairing mains and services, and providing customer service. The big difference
5		between the three utilities and within the 71 water systems that the utilities own and
6		operate, is the variable cost to produce water. That variable cost varies from about
7		\$0.045 per CCF to \$5.89 per CCF. See Attachment E for this data. Attachment E was
8		developed in responses to OCA data request 4-3.
9		In PWW, the variable cost across its 24 systems is between \$0.086 per CCF to
10		\$5.24 per CCF, with the Nashua Core having a current variable cost of \$0.808 per CCF.
11		In PEU, the variable cost across its 46 systems is between \$0.045 per CCF to
12		\$5.89 per CCF while PAC's variable cost is about \$0.328 per CCF. In fact, there are 52
13		different variable costs associated with Pennichuck Corporations 71 regulated water
14		systems. Those variable costs do not vary because of the utility that the water system is
15		part of nor are they based upon their geographic location. Rather, the variable costs vary
16		because of different water qualities and the need to purchase water in some cases versus
17		producing water. These variables affect all three utilities and is different fashions as can
18		be seen in PWW, PEU, and PAC's variable costs to produce water cited above.
19	Q.	Do you have an opinion on the just and reasonableness of this revised rate design?
20		If so, what is that opinion?
21	А.	Yes, my opinion is that the proposed merger, paired with the revised rate design is fair
22		and reasonable. The formation of three regulated utilities is a relic of history and has
23		little or nothing to do with geography and cost of service. As I just noted, the variable

cost of water is generally within the same range for all three utilities. PEU was formed as
a result of the acquisition of the former Hudson systems and PAC was formed as a result
of the acquisition of Pittsfield's water system. In 1996, the Commission recognized the
value of PWW's 14 water systems migrating to a common rate. In 2006, the
Commission recognized the value of PEU's 3 rate classes being combined into one rate
class.

For all the reasons noted in my earlier testimony, it is time to remove these 7 artificial barriers between the three utilities and create a single utility with a single tariff 8 9 rate. In time each water system will benefit from having its capital investment shared by all the other customers within combined PWW. Also, all of PWW's residential 10 customers enjoy the volumetric rates that they have because of the commercial and 11 industrial customer base that exists in PWW, but does not exist to any large degree in 12 either PEU or PAC. The proposed merger and inclining block rate structure provides 13 equal, fair and affordable pricing to all of the residential customers in regard to their non-14 discretionary and discretionary water usage. This in part is accomplished by the larger 15 use customers paying higher volumetric rates for greater usage; as well as, a higher rate 16 being paid by the residential customer who use water from non-discretionary purposes 17 (lawn irrigation, pools, etc). Without the proposed merger, PEU's proposed 2022 test 18 year rates will be unaffordable in at least 10 of the communities where PEU provides 19 20 service to (46 water systems) for the lowest quartile of residential customers, as well as the lowest quartile of residential customers in the Town of Pittsfield. (See Londonderry 21 DR 2-20) attached as Attachment B. 22

8	Q.	Mr. Ware, does this conclude your testimony?
7		all ratepayers.
6		anticipate savings of approximately \$487,000 as a result of the merger which will benefit
5		longer terms and lower rates for all three systems), and the combined companies
4		will result in more financial stability for the three systems, better access to capital (at
3		residential customers across the three utilities for non-discretionary use and the merger
2		revised rate design is just and reasonable because it provides better affordability to all
1		For these reasons and the additional reasons stated above, I believe that the

9 A. Yes, it does.